



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,699	01/02/2004	Michael H. Jette	766726610065(004)	3829
24325	7590	01/12/2007		
STEPHEN D. SCANLON JONES DAY 901 LAKESIDE AVENUE CLEVELAND, OH 44114			EXAMINER LEUNG, CHRISTINA Y	
			ART UNIT	PAPER NUMBER
			2613	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/750,699

Applicant(s)

JETTE ET AL.

Examiner

Christina Y. Leung

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-20 is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers (US 5,781,320 A) in view of Kimbrough et al. '934 (US 2002/0063924 A1).

Examiner notes that for clarity, the US 2002/0063924 A1 reference will be referred to as "Kimbrough et al. '934" throughout this Office action, in order to distinguish the reference from US 6,362,908 B1 ("Kimbrough et al. '908") cited later in this Office action.

Regarding claim 1, Byers discloses an optical network terminal (ONT; Figure 3) for providing communication services to a single residential unit, comprising:

a passive optical network interface (PI) circuit (including optical transmitter 64 and optical receiver 62) that receives optical signals from an optical fiber and that transmits optical signals onto the optical fiber, the PI circuit being adapted to convert received optical signals containing voice information to electrical voice ATM cells, received optical signals containing data information to electrical data ATM cells, and received optical signals containing video signals to electrical video signals, the PI circuit also being adapted to convert electrical voice ATM cells and electrical data ATM cells to optical signals for transmission over the optical fiber (column 4, lines 54-67; column 5, lines 1-38); and

Art Unit: 2613

a residential service interface (RSI) circuit (including ATM segmentation/reassembly circuit 66 and other circuitry on video decoder 74, LAN interface card 92, and dual POTS line card 76) that is adapted to convert the electrical voice ATM cells to a telephony format suitable for use at the residential unit and the electrical data ATM cells to a data network format suitable for use at the residential unit, the RSI circuit also being adapted to convert telephony format information received from the residential unit to voice ATM cells and data network format information received from the residential unit to data ATM cells (column 5, lines 6-38).

Byers generally discloses providing power to the circuitry and generally disclose backup batteries (column 5, lines 24-27) but does not specifically disclose details of a power unit.

However, it is well known in the art that the electrical signal processing circuitry disclosed by Byers et al. inherently requires a source of power to function properly. Kimbrough et al. '924 further teach a system that is related to the one disclosed by Byers, including an optical network terminal (home network unit HNU 50 as shown in Figure 1). Kimbrough et al. '934 further teach a power unit for providing power for use in the optical network terminal circuits, the power unit including an ac/dc converter for converting ac power received from the residential unit to dc power for use in the ONT and backup batteries for providing power when there is an interruption of the ac power (page 4, paragraph [0047]; page 5, paragraphs [0055] and [0059]; page 7, paragraph [0089]; and pages 9-10, paragraph [0110]).

Regarding claims 6-8 in particular, Kimbrough et al. '934 teach that the backup batteries comprise C cell batteries (page 5, paragraph [0059]). Although Kimbrough et al. '934 do not further specifically teach that the batteries are disposable or rechargeable, C cell batteries are

Art Unit: 2613

commonly available, and it is well known in the electronic circuitry art that the batteries are available in disposable and rechargeable forms.

Regarding claims 1 and 6-8, it would have been obvious to a person of ordinary skill in the art to provide an ac/dc converter and a backup C cell battery as taught by Kimbrough et al. '934 in the system disclosed by Byers in order to effectively supply power to the electronic circuitry disclosed and to effectively provide a redundant source of power in the event of power failure using a commonly available battery type.

Regarding claim 10, Byers et al. disclose several telephony interfaces (including POTS line card 76 as shown in Figure 3) and a video interface (including video decoder 74). Further regarding claim 10, and also regarding claims 4 and 5 in particular, Byers et al. disclose a data interface (including LAN interface card 92), but they do not specifically disclose that the data interface is an Ethernet interface. However, Ethernet protocol is well known in the communications art, and Kimbrough et al. '934 in their related system further teach converting and transmitting a data network format compatible for transmission via an 10 base T Ethernet interface using an optical network terminal (home network unit 50; page 5, paragraphs [0063] and [0067]).

Regarding claims 4, 5, and 10, it would have been obvious to a person of ordinary skill in the art to specifically include an Ethernet interface as taught by Kimbrough et al. '934 in the system described by Byers in view of Kimbrough et al. '934 in order to enable the users at the residential unit to effectively communicate data signals using a well known Ethernet standard.

Regarding claims 2 and 11, Byers discloses that the telephony format is compatible for transmission via a POTS interface (column 5, lines 19-24).

Art Unit: 2613

Regarding claims 3 and 12, Byers. discloses that the telephony format is compatible for transmission via an ISDN interface (column 2, lines 13-19).

Regarding claims 13 and 14, Byers et al. disclose a video interface, but they do not specifically disclose CATV or DBS video interfaces. However, CATV and DBS video services are well known in the communications art, and Kimbrough et al. '934 in their related system further teach CATV and DBS video interfaces in an optical network terminal (home network unit 50; page 4, paragraph [0047]) Regarding claims 13 and 14, it would have been obvious to a person of ordinary skill in the art to specifically include an Ethernet interface as taught by Kimbrough et al. '934 in the system described by Byers in view of Kimbrough et al. '934 in order to enable the users at the residential unit to effectively receive well known CATV and DBS video services.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al. in view of Kimbrough et al. '934 as applied to claim 1 above, and further in view of Kimbrough et al. '908 (US 6,362,908 B1).

Again, Examiner notes that for clarity, the US 6,362,908 B1 reference will be referred to as "Kimbrough et al. '908" throughout this Office action, in order to distinguish the reference from US 2002/0063924 A1 ("Kimbrough et al. '934").

Regarding claim 9, Byers et al. in view of Kimbrough et al. '934 describe a system as discussed above with regard to claim 1. Byers et al. further disclose a plurality of electrical terminals that provide a connection point for telephony lines that transport telephony format information between the ONT and the residential unit (i.e. the electrical connection between POTS line card 76 and telephones 77 as shown in Figure 3), a connection point for network lines

Art Unit: 2613

that transport network format information between the ONT and the residential unit (i.e., the electrical connection between LAN interface card 92 and personal computer 93), and a connection point for video cables that transport video information to the residential unit (i.e., the electrical connection between video decoder 74 and television 91)

Byers et al. in view of Kimbrough et al. '934 do not specifically further teach an electrical protector circuit.

However, Kimbrough et al. '908 teach a system that is related to the one described by Byers et al. in view of Kimbrough et al. '934, including an optical network terminal having a plurality of electrical terminals for transporting telephony, data, and video to a residential unit (optical network unit ONU 50; Figure 4a). Kimbrough et al. '908 further teach an electrical protector circuit (over-voltage protection circuitry 96) that reduces the likelihood of components of circuits being damaged by electrical hazards (column 2, lines 20-22; column 9, lines 36-54).

Regarding claim 9, it would have been obvious to a person of ordinary skill in the art to include an electrical protector circuit as taught by Kimbrough et al. '908 in the system described by Byers et al. in view of Kimbrough et al. '934 in order to advantageously protect the circuitry in the optical network terminal from power surges.

Allowable Subject Matter

4. Claims 15-20 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art, including Byers et al., Kimbrough et al. '934, and Kimbrough et al. '908, does not specifically disclose or fairly teach a system including the particular combination of all the elements and limitations recited in claim 15.

Art Unit: 2613

Conclusion

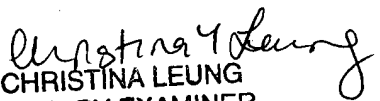
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Y. Leung whose telephone number is 571-272-3023.

The examiner can normally be reached on Monday to Friday, 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHRISTINA LEUNG
PRIMARY EXAMINER